

(2) For Category 2 engines, the FEL may not exceed the applicable standard by more than 25 percent.

[64 FR 73331, Dec. 29, 1999, as amended at 67 FR 68346, Nov. 8, 2002]

§ 94.305 Credit generation and use calculation.

(a) For each participating engine family, calculate $\text{THC}+\text{NO}_x$ and PM emission credits (positive or negative) according to the equation in paragraph (b) of this section and round emissions to the nearest one-hundredth of a megagram (Mg). Use consistent units throughout the calculation.

(b) Credits (Mg) for each engine family are calculated as: Emission credits =
$$\frac{\text{Std-FEL} \times (\text{UL}) \times (\text{Production}) \times (\text{AvgPR}) \times (\text{LF})}{\times (10^{-6})}$$

Where:

(i) Std = the applicable cycle-weighted marine engine $\text{THC}+\text{NO}_x$ or PM emission standard in grams per kilowatt-hour.

(ii) FEL = the family emission limit for the engine family in grams per kilowatt-hour. (The FEL may not exceed the limit established in § 94.304(m) for each pollutant.)

(iii) UL = the useful life in hours of operation.

(iv) Production = the number of engines participating in the averaging, banking, and trading program within the given engine family during the calendar year (or the number of engines in the subset of the engine family for which credits are being calculated). Quarterly production projections are used for initial certification. Actual applicable production/sales volumes are used for end-of-year compliance determination.

(v) AvgPR = average power rating of all of the configurations within an engine family, calculated on a sales-weighted basis, in kilowatts.

(vi) LF = the load factor, dependent on whether the engine is intended for propulsion or auxiliary applications, as follows:

- (A) 0.69 for propulsion engines,
- (B) 0.51 for auxiliary engines.

[64 FR 73331, Dec. 29, 1999, as amended at 68 FR 9786, Feb. 28, 2003]

§ 94.306 Certification.

(a) In the application for certification a manufacturer must:

(1) Declare its intent to include specific engine families in the averaging, banking, and/or trading programs. Separate declarations are required for each pollutant ($\text{THC}+\text{NO}_x$ and PM).

(2) Declare FELs for each engine family participating in certification averaging, banking, and/or trading.

(i) The FELs must be to the same number of significant digits as the emission standard.

(ii) In no case may the FEL exceed the upper limit prescribed in § 94.304(m).

(3) Conduct and submit detailed calculations of projected emission credits (positive or negative) based on quarterly production projections for each participating family and for each pollutant, using the applicable equation in § 94.305 and the applicable values of the terms in the equation for the specific family.

(i) If the engine family is projected to have negative emission credits, state specifically the source (manufacturer/engine family) of the credits necessary to offset the credit deficit according to quarterly projected production.

(ii) If the engine family is projected to generate credits, state specifically where the quarterly projected credits will be applied (manufacturer/engine family or reserved).

(4) Submit a statement that the engines for which certification is requested will not, to the best of the manufacturer's belief, cause the manufacturer to have a negative credit balance when all credits are calculated for all the manufacturer's engine families participating in the averaging, banking, and trading program.

(b) Based on this information, each manufacturer's certification application must demonstrate:

(1) That at the end of model year production, each engine family has a net emissions credit balance equal to or greater than zero for any pollutant and program for which participation in certification under averaging, banking, and/or trading is being sought. The equation in section § 94.305 shall be used in this calculation for each engine family.

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(2) That the manufacturer will obtain sufficient credits to be used to comply with the emission standard for any engine family with an FEL that exceeds the applicable emission standard, or where credits will be applied if the FEL is less than the emission standard. In cases where credits are being obtained, for each engine family involved the manufacturer must identify specifically the source of the credits being used (manufacturer/engine family). All such reports shall include all credits involved in certification averaging, banking, or trading.

(3) That in cases where credits are being generated/supplied, the use of such credits is specifically designated (manufacturer/engine family or reserved). All such reports shall include all credits involved in certification averaging, banking, or trading.

(c) Manufacturers must monitor projected versus actual production throughout the model year to ensure that compliance with emission standards is achieved at the end of the model year.

(d) At the end of the model year, the manufacturer must provide the end-of-year reports required under § 94.309.

(1) Projected credits based on the information supplied in the certification application may be used to obtain a certificate of conformity. However, any such projected credits must be validated based on review of the end of model year reports and may be revoked at a later time based on follow-up audits or any other verification measure deemed appropriate by the Administrator.

(2) Compliance for engine families using averaging, banking, or trading will be determined at the end of the model year. Manufacturers that have certified engine families with credit balances for THC+NO_x and/or PM that do not equal or exceed zero shall be in violation of the conditions of the certificate of conformity for such engine families. The certificate of conformity may be voided *ab initio* for those engine families.

(e) Other conditions of certification.

(1) All certificates issued are conditional upon compliance by the manufacturer with the provisions of this

subpart both during and after the calendar year of production.

(2) Failure to comply with all provisions of this subpart will be considered to be a failure to satisfy the conditions upon which the certificate was issued, and the certificate may be deemed void *ab initio*.

(3) The manufacturer bears the burden of establishing to the satisfaction of the Administrator that the conditions upon which the certificate was issued were satisfied or waived.

§ 94.307 Labeling.

For all engines included in the certification averaging, banking, and trading program, the FEL to which the engine is certified must be included on the label required in § 94.212.

§ 94.308 Maintenance of records.

(a) The manufacturer of any engine that is certified under the averaging, banking, and trading program must establish, maintain, and retain the following adequately organized and indexed records for each such engine produced:

- (1) EPA engine family and configuration;
- (2) Engine identification number;
- (3) Engine calendar year and build date;
- (4) Rated power;
- (5) Purchaser and destination; and
- (6) Assembly plant.

(b) The manufacturer of any engine family that is certified under the averaging, banking, and trading program must establish, maintain, and retain the following adequately organized and indexed records for each such family:

- (1) Model year and EPA engine family;
- (2) Family Emission Limit(s) (FEL);
- (3) Rated power for each configuration;
- (4) Projected applicable production/sales volume for the calendar year;
- (5) Actual applicable production/sales volume for the calendar year; and
- (6) Useful life.

(c) Any manufacturer producing an engine family participating in trading of credits must maintain the following records on a quarterly basis for each engine family in the trading program:

- (1) The model year and engine family;